

## 9. CUSTOMER SUPPORT

Should you experience any difficulties with your NEWCON OPTIK product, consult the enclosed manual. If the problem remains unresolved, contact our customer support department at (416) 663-6963. Our operating hours are 9am-5pm, Monday - Friday, standard Eastern Time.

At no time should equipment be sent back to Newcon without following the instructions of our technical support department. Newcon accepts no responsibility for unauthorized returns.

To locate the NEWCON Authorized Dealer call:

Tel: (416) 663-6963 Fax: (416) 663-9065

Email: NEWCONSALES@NEWCON-OPTIK.COM.

The defective products should be shipped to:

In USA: 3310 Prospect Ave. Cleveland, OH 44115

In Canada: 105 Sparks Ave., Toronto, ON M2H 2S5

## 10. ACCEPTANCE CERTIFICATE

### NIGHT VISION DEVICE

Serial Number \_\_\_\_\_

Model: BN 5

Corresponds to technical conditions ADSH 3.807.020 TU and is admitted for use.

Date of production - \_\_\_\_\_

Place for seal

Quality inspector \_\_\_\_\_  
(signature)



Operation Manual



## NIGHT VISION BINOCULAR

# BN 5

In USA : 3310 Prospect Ave. Cleveland, OH 44115  
In Canada : 105 Sparks Ave., Toronto, ON M2H 2S5  
Tel: (416) 663-6963 Fax: (416) 663-9065  
Email: newconsales@newcon-optik.com  
Internet: www.newcon-optik.com

## **CONTENTS**

- 1- Important Information
- 2- Overview
  - i) Application and Advantages of BN 5
  - ii) Warning
  - iii) Precautions
- 3- Components
- 4- Specifications
- 5- Construction
- 6- Operating Instructions
  - 6.1 Pre-starting procedures
  - 6.2 Testing of operation
  - 6.3 Operation at night
- 7- Troubleshooting
- 8- Warranty
- 9- Customer support
- 10- Acceptance Certificate

## **1. IMPORTANT INFORMATION**

### **Read prior to activation**

You have just purchased a complicated electronic device. To operate it properly, please read this manual carefully. Here are some common precautions that must be noted.

securely packaged in its original container or an equivalent, along with proof of the date of original purchase, to your NEWCON OPTIK dealer. NEWCON OPTIK will, repair (or at its option replace), the product or part thereof, which, on inspection by NEWCON OPTIK, is found to be defective in materials or workmanship.

### ***What This Warranty Does Not Cover:***

NEWCON is not responsible for warranty service should the product fail to be properly maintained or fail to function properly as a result of misuse, abuse, improper installation, neglect, damage caused by disasters such as fire, flood, lightning, improper electrical current, or service other than by a NEWCON Authorized Service. Postage, insurance, or shipping costs incurred in presenting your NEWCON product for warranty service are your responsibility. Please include a cheque or money order made out to NEWCON OPTIK for the amount of US\$15.00 to cover shipping and handling.

**NEWCON OPTIK** may replace any product that has been discontinued or is out of stock, by another current product of comparable value and function.

NEWCON OPTIK DISCLAIMS ANY WARRANTIES, EXPRESSED OR IMPLIED, WHETHER OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE, EXCEPT AS EXPRESSLY SET FORTH HEREIN. THE SOLE OBLIGATION OF NEWCON UNDER THIS LIMITED WARRANTY SHALL BE TO REPAIR OR REPLACE THE COVERED PRODUCT, IN ACCORDANCE WITH THE TERMS SET FORTH HEREIN. NEWCON EXPRESSLY DISCLAIMS ANY LOST PROFITS, GENERAL, SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES WHICH MAY RESULT FROM BREACH OF ANY WARRANTY, OR ARISING OUT OF THE USE OR INABILITY TO USE ANY NEWCON PRODUCT.

If the view still does not seem in focus, clean the lenses; they could be foggy or dusty.

#### *Unit flashes*

It is normal for the unit to flash within the first 2 minutes of activation. If the flashing continues afterwards the following is a possible cause: bright environment (even with the caps closed!)

#### *Condensation accumulates on the parts.*

It is O.K. to use the unit in cold. However, when the unit is brought from the cold into a warm environment, it has to warm up for up to 2 hours (not minutes!). Only then it is allowed to turn it on again.

#### *Visibility decreases and / or disappears.*

Bright light sources (moon, projectors or headlights) may cause visibility to degrade or even completely disappear. Move the binoculars away from the light source immediately. The image should be restored in within 2 minutes.

Poor atmospheric conditions such as fog, haze or extremely dark environments will decrease the visibility distance of the unit.

## **8. WARRANTY:**

**NEWCON OPTIK** warrants this product against defects in material and workmanship for one year from the date of the original date of consumer's purchase, but no more than 18 months from the date of manufacturing. Should your **NEWCON** product prove defective during this period, please bring the product

- **NEVER** disassemble the unit. This device contains high voltage, which may be hazardous to your health!
- **NEVER** expose the opened objective lens of the activated unit in daylight. (Note: 1st generation units remain active for a few minutes after switching the unit off). If you test the device during daytime, caps must cover the objective lenses. There is a tiny hole in the lens caps to provide enough light for such testing.
- **NEVER** aim active unit at intense light sources (i.e. lights, headlamp, campfires, the moon, etc.)
- **NEVER** reverse the batteries polarity.
- **NEVER** connect the unit to external power sources.
- **ALWAYS** keep the objective lenses covered when not in use
- **ALWAYS** store in a warm dry place when not in use
- **ALWAYS** remove battery when not in use for a long period

**THANK YOU**  
**FOR PURCHASING THE NIGHT VISION BINOCULAR BN 5. PLEASE DEMAND TO CHECK THE DEVICE FOR PROPER OPERATION WHEN BUYING IT. PLEASE READ ALL THE INSTRUCTIONS CAREFULLY BEFORE USING.**

## 2. OVERVIEW

The night vision binocular BN 5 is observational optico-electronic device, intended for examining objects and orientation at nighttime or under dark conditions. The unit utilizes 2 (two) image intensifiers which amplify available moonlight, starlight or man-made light. The binocular was designed to be easy to use, and provide many years of operation.

### Some of the typical activities where the BN 5 Night Vision Binocular can be useful:

- law enforcement
- wildlife observation
- security
- search and rescue
- hunting

### *Features*

- Built-in infrared illuminator allows observations in total darkness (i.e. basement, cave or dark room);
- 2 (two) image intensifiers, one for each eye; provide stereo vision;
- Independently adjustable eyepieces;
- Interpupillary distance adjustment;
- Lightweight and comfortable;
- Soft rubberized eyepieces make the viewing more comfortable;
- Water-resistant
- Works on standard AA batteries.

## 6.3 Operation at Night

Take off the lens covers (7) from the lenses (6). Turn on the device by pushing and holding the “On” button (4). In case of insufficient lighting when observing an object which is situated not far from the viewer, turn on the infrared illuminator by pushing and holding the button (3). As soon as the “I/R On” button is released the infrared illuminator turns off.

**Note:** The illuminator will be activated only if the unit has been already switched on by the button (4).

**Note:** If you look directly at front of the binocular when infrared illuminator is on it appears as a red dot at a size of a lit cigarette. The illuminator can be also detected using night vision device. Therefore, if you need to remain undetected, use the illuminator with caution.

**Note:** The unit automatically turns off after few minutes. This feature can be used to economically utilize the batteries power by periodically switching on and off the device during operation.

If brightness of the screen decreases, replace the batteries. Put protective lens caps back on the lenses after operation. If you don't intend to use the device during long time remove the batteries from the battery compartments to avoid any damage of the device in case of occasional leakage of electrolyte from the batteries.

## 7. TROUBLESHOOTING

*The binocular does not work.*

Check if the battery is installed properly.

Check the charge of the battery. Replace if it is weak.

*The image does not appear in focus.*

Bring the inspected object to the center of the image. Turning the eyepieces (5) adjust to achieve the clearest image on the screen.

Repeat the steps of focusing if necessary

## 6. OPERATION INSTRUCTIONS

### WARNING!

**NEVER OPERATE YOUR NIGHT VISION DEVICE IN DAYLIGHT AREAS WITHOUT THE LENS COVERS ON! NEVER DIRECT THE LENS IN THE DIRECTION OF BRIGHT LIGHT!**

#### 6.1 Pre-starting procedures.

Unpack the device. Open the battery house cover (2), and install the battery. Observe the correct polarity indicated on the housing. Close the battery house cover.

#### 6.2 Daytime testing.

Check the functioning of the device by switching it on (push and hold button 4) and looking through the eyepieces (5). **(Make sure the lens caps are on while operating during the day)**. If power supply and the batteries are O.K., you will see greenish-lit screen. If the screen is not lit, check the batteries. Replace the battery if necessary. If everything works, now it is a great time to fill the warranty card.

**Note:** The unit will remain on for up to several minutes after releasing the “On” button. This is normal.

Direct the device on an object placed within 8-15m from the viewer. Turning the eyepieces (5) try to achieve the sharpest image on the screen of the image tube. Adjust the distance between the eyes by folding the binoculars until two images merge into one. If you wear glasses fold the eyepiece rubber guards (5) to obtain closer focus distance.

**Warning!** After transportation or keeping the device at temperature lower than  $-25^{\circ}\text{C}$  ( $-13^{\circ}\text{F}$ ), the device must be warmed up to ambient temperature for at least 2 hours.

#### Precautions

BN 5 is a sophisticated precision optical instrument equipped with electronics. Therefore, it should be handled with due care.

- Keep your device away from direct sunlight, impacts, dust, moisture, and sudden changes of temperatures.
- Cleaning of optical surfaces is possible only with professional camera lens cleaning supplies.
- Do not touch optical surface with fingers. Doing so may damage the anti-reflection coating.
- To clean the exterior of the device, use only a soft clean cloth.
- Do not take the covers off the lenses if not necessary.
- Keep away from heating appliances and central heating.
- Make sure to switch off the unit during periods of non-operation and when storing the device for long period of time.
- Do not apply superfluous efforts at work with lens assembly, agile elements and thread connections.

Due to considerable optical magnification of the eyepiece some small structures inside the tube coating may be seen in the field of view in the form of dark and/or white points, which does not affect the serviceability of the device

The resolving power (resolution) may change in the direction from the center towards the perimeter of the field of view. This is an inherent feature of the image tube type utilized in the device. We would recommend to place the scene of observation in the center of the field of view.

### 3. COMPONENTS

BN 5 are supplied with the following components:

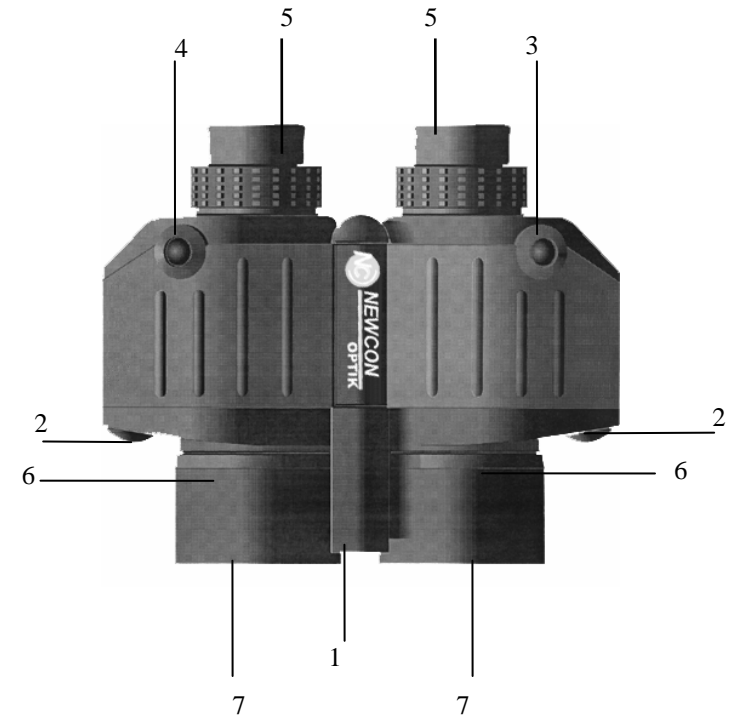
BN 5	1
Strap	1
Lens caps	2
Manual	1
Warranty registration card	1
AA batteries (optional)	2

### 4. SPECIFICATIONS OF BN 5

Magnification, X	2.4
Field of view, degrees, not less	26°
Dioptric correction	± 4
Interpupillary distance	54-76mm
Required light levels: Without illuminator	From:0.1 lux (cloudy moon less nigh) To:1.5 lux (twilight)
With infrared illuminator	Total darkness
Operating temperature (air humidity 80% at 20°C)	30°C ... +35°C
Battery	2xAA
Battery life, hours (0.8 Ah capacity @25±10°C) With I/R	4
Without I/R	6
Dimensions, mm	165x204x67
Weight, kg	1.2

**NOTE:** As the design is being continuously improved some parameters may differ from those given above

### 5. CONSTRUCTION



Pic.1

1. I/R illuminator
2. Battery house cover
3. I/R illuminator "On" button
4. "Power on" button
5. Eyepieces
6. Objective lenses
7. Lens covers